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**Product Data Sheet**


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Product Name: IDNK E.Coli, Active

Cat. No.: GP26191

Batch No.: 1

**Product Data**

Purity &gt;98% Source Escherichia Coli.

Physical Appearance solid Shipping Condition withIcePacks

Synonyms Thermosensitive gluconokinase, Gluconate kinase 1, idnK, D-gluconate kinase thermosensitive, D-gluconate kinase, thermosensitive, ECK4261, gntV, JW4225, b4268

Amino Acid Sequence MGSSHHHHHH SGLVPRGSH MGSMAGESFI LMGVSGSGKT LIGSKVAALL SAKFIDGDDL HPAKNIDKMS QGIPLSDEDR LPWLERLND SYSLYKKNET GFIVCSSLKK QYRDILRKGS PHVHFLWLDG DYETILARMQ RRAGHFMPVA LLKSQFEALE RPQADEQDIV RIDINHDIAN VTEQCRQAVL AIRQNRICAK EGSASDQRCE

Formulation The IDNK solution (1 mg/ml) contains 10% Glycerol, 1mM DTT, 0.15M NaCl and 20mM Tris-HCl buffer (pH 8.0).

**Introduction**

D-gluconate kinase or idnk is a thermosensitive protein, consists of 187 a.a and part of the gluconokinase gntK/gntV protein family. Idnk enhances the conversion of ATP + D-gluconate => ADP + 6-phospho-D-gluconate. Idnk has a crucial part in determination of gender, removal of a certain portion of 9p may result in the making of male to female (reversal of sex), that leads to a female that has the genotype of male X, Y.

**Biological Activity**

Specific activity is > 80unit/mg. One unit will convert 1.0 umole of D-gluconate to 6-phospho-Dgluconate per minute at pH 8.0 at 37°C.

**Stability**

Store at 46yC if entire vial will be used within 2-4 weeks. Store, frozen at -206yC for longer periods of time. For long term storage it is recommended to add a carrier protein

**Caution: Product has not been fully validated for medical applications. For research use only.**

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(0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

IDNK Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 210 amino acids (1-187) and having a molecular mass of 23.4 kDa. IDNK is fused to a 23 amino acid His-Tag at N-terminus and purified by proprietary chromatographic techniques.

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